Analysis of the Policy Network for Tourism Cooperation between Busan, Korea and Fukuoka, Japan

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Abstract

This study is an empirical analysis to identify the underlying characteristics of the policy network for a tourism cooperative between Busan metropolitan city, Korea and Fukuoka city Japan. The relational structure between the key actors has been graphically depicted through the analysis and key actors, and coordinators have been confirmed by period through a centrality analysis. The results indicated that tourism policy network between Busan and Fukuoka led to the formation of public and private actors, the number of actors increased as the project proceeded and their interaction displayed a complex pattern. However, there was transmission of information and resources in each process by the various actor, the acquisition and the mediation of the information and resources was centralized by local governments. This implies that equal distribution of power is needed to maintain network stability.

Key words: policy network, tourism cooperation, social network analysis, Korean and Japanese local government, Busan–Fukuoka

Introduction

Local governments have emerged as important political, economic and social actors with a trend of localization. With the implementation of local autonomy, financial independence has become challenging and promoting tourism remains an important policy for revitalizing regional economies^{1), 2)}. However, many tourism resources and contents that attract tourists are concentrated around the capital area and some specific regions. This implies that provincial cities have limited resources and budgets for attracting tourist. Therefore, the cooperation between provincial cities is considered critical in the tourism sector. Local governments continue to seek ways to successfully develop cooperation between tourism and other economic fields the basis of on building trust through increased exchanges such as the sister cities program. The creation of international local government cooperation networks are self-organized units that are gaining greater independence from national government and playing a greater role in politics and the economy³⁾.

However, even after participants in a tourism cooperative reach an agreement, often there is no actual progress or economic achievement. For example, the actual details of such joint actions are often merely mutual visits between public officials who visit each other's tourist attractions or terminate in one-off events^{4), 5), 6)}. The establishment of multilateral cooperative

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system is important issue to be discussed. Therefore, comprehending of the network of tourism cooperation is indispensable. The tourism policy environment surrounding local governments is rapidly changing. The planning and implementation of a tourism policy is not determined by decisions made by the local government, but by public and private sector stakeholders. In other words, it is very important to understand the network of stakeholders because of the complexity of the decision-making process and the variety of actors involved. It is well recognized that the policy network is very effective at analyzing the complicated connections and interactions between formal and informal actors as a method to categorize relationships between actors in the central, local, and private sectors⁷⁾. Conventional studies on tourism cooperation are mainly about analyzing the current status of tourism exchanges and methods to build a cooperative system from a macroscopic perspective^{4), 5), 6)}. However there is a lack of studies on the municipal policy implementation process even though such a policy is very essential. With this recognition, this research conducts empirical analyses on the characteristics of policy networks with a focus on local governments' tourism cooperation by conducting a network analysis. The "Busan-Fukuoka Asia Gateway 2011" project a tourism cooperation case used in this study, aims to promote tourism exchanges between Busan and Fukuoka. Most tourism cooperatives between municipalities have not advanced significantly beyond signing cooperation agreements or adopting cooperative declarations. In contrast, the cooperation between Busan and Fukuoka comprises an actual action plan for the project and connects to a wide variety of actors in the public and private sectors. In this study, policy implications from the Busan-Fukuoka tourism cooperation are identified by analyzing the interactions of different actors. The results of these analyses could be useful for the planning and implementation of tourism cooperatives between other local governments.

Literature Review

Tourism Cooperation

Tourism cooperation means building and enforcing open lines of communication and actions in a cooperative system between two (or more) parties toward the resolution of issues and problems that are barriers to improving tourism⁸⁾. Additionally, tourism cooperation among nations is defined as collaborative efforts to eliminate various obstacles for international tourism and to promote mutual benefits by the development of international tourism^{5), 9)}. Tourism cooperation at the central government level is focused on cooperation in the movement of tourists or cooperation of tourism deregulation, such as issuing visas or simplifying immigration procedures. On the other hand, local governments' tourism cooperation is led by the actions of local government to improve competitiveness by joint tourism promotions for local special products. Cooperation at the local governmental level complements deficient direct effects from state-level cooperation on local tourism revitalization. Resources and contents that attract tourists are often concentrated around the capital area and some specific regions. Thus, provincial cities have limited resources and budgets for attracting tourists. Therefore, cooperation between provincial cities is considered critical in the tourism sector. In addition, it provides an opportunity to promote mutual understanding and active networking in private sectors.

Previous studies on tourism cooperation have typically been on cooperation between

countries and local governments. Studies on cooperation between countries have tended to center around the question of how three countries, mainly China, Japan, and Korea, could build a cooperative system^{4), 9), 10), 11), 12)}. Studies on cooperation between local governments have tended to center around the question of how to promote tourism as sister cities in active exchanges¹³⁾. Cooperation activity between local governments is less studied than cooperation between countries. The previous studies have focused on suggesting the means and necessity of tourism cooperation by analyzing the current status and introducing cases of successful cooperation. However, there has been a lack of an empirical approach to studying tourism cooperation from a policy perspective for implementing suggestions even though it is very important. In this study, tourism cooperation is defined as a cooperative effort between local governments in an equal partnership to promote local tourism and to have productive, active interactions. On the basis of this concept, the characteristics of policy networks in tourism cooperation will be examined.

Policy Network

In recent years, policy networks have contributed to the study of the policy process as an important conceptual innovation¹⁴⁾. A policy network can be defined as a cluster or complex of organizations connected to each other by resource dependencies and distinguished from other clusters or complexes by breaks in the structure of resource dependencies¹⁵⁾. A policy network is described by its boundary, its actors, and their linkages. It includes a relatively stable set of mainly public and private corporate actors. The linkages between the actors are the communication channels for the exchange of information, expertise, trust, and other policy resources. The boundary of a given policy network is not primarily determined by formal institution, but results from a process of mutual recognition that is dependent on functional relevance and structural embeddedness¹⁶⁾. Policy network studies in the field of tourism have been done primarily with a focus on the policy-making and decision-making processes¹⁷⁾. Empirical studies on the implementation process are still lacking. In particular, it has been suggested that the development of such a study should be accomplished through the analysis of the dynamics of policy networks through the accumulation of material in a time series.

Measuring Policy Network: Social Network Analysis

The essential goal in a research project on a policy network of tourism cooperation is to find the participant who is more important than all the others. Important participants can be the ones who provide more information and sources, and connect to other participants more frequently or those who are invited into relationships more frequently than others^{17), 19)}. These interactions can be measured through the social network analysis, which has gained much attention in the field of natural and social sciences. Social network analysis, derived from graph theory, describes the structure of relations (displayed by links) between given entities (displayed by nodes) and applies quantitative techniques to produce relevant indicators and results for studying the characteristics of an entire network and the position of individuals in the network structure²⁰⁾. One of the main applications of social network analysis is the identification of the important actors in their network²¹⁾. This can be measured through the centrality. Centrality is an indicator showing the degree of the centralization of one actor in the entire network. Centrality

comprises degree and betweenness centrality. Degree centrality is divided into in-degree and out-degree according to the exchange direction and is measured by direct connection numbers between the actors in the network. In-degree refers to receiving requests for relationships from other actors, that is, the “receiver” of information or resources. Out-degree refers to taking an aggressive action to request other actors to enter a relationship, that is, the “sender” of information or resources²²⁾. The in-degree centrality ($C_{D,in}$) and out-degree centrality ($C_{D,out}$) of a given node are formally defined as following equation²⁰⁾ :

$$C_{D,in}(n_i) = \sum_{j=1}^l r_{ij,in}; \quad C_{D,out}(n_i) = \sum_{j=1}^l r_{ij,out}, \quad (1)$$

Where r_{in} and r_{out} , respectively, each denote an inward and outward connection of node I , and l indicates the number of nodes within the network. In-degree centrality of a node I is the sum of the number of nodes j in the network (1 to l) that connect inwardly (from node j to node i); out-degree centrality of a node I is the sum of the number of nodes j in the network (1 to l) that connect outwardly (from node I to node j).

Betweenness centrality measures the frequency with which an actor is active on the paths between pairs of other actors²³⁾. The betweenness of a node measures the extent to which it can play the role of a broker or gatekeeper with a potential for control over others. The betweenness centrality of a node is defined as following equation²⁰⁾ :

$$C_B(n_i) = \sum_j \sum_k \frac{g_{jk}(n_i)}{g_{jk}}, \quad j \neq k \neq i, \quad (2)$$

where g_{jk} denotes the number of geodesics between nodes j and k , and $g_{jk}(n_i)$ denotes the number of geodesics linking the two nodes that contain node i . Betweenness centrality of a node i is the sum of the node I 's estimated probabilities of standing along any geodesic that all pairs of nodes (nodes j and k , excluding node i) in the network have selected.

A central position within the network indicates the amount of power obtained through the structure and capacity to access information and other members²¹⁾. In this study, the centrality analysis will be utilized to identify the key actors in tourism cooperation.

Case study: Busan–Fukuoka Asia Gateway 2011

Busan Metropolitan City (768.408 km²) is located on the southeastern tip of the Korean peninsula. Fukuoka City (340.03 km²) is situated on the northern shore of the island of Kyushu, Japan. Busan and Fukuoka are located within about 200 km distance of each other, separated by sea. The two cities have a twenty year history of exchange and cooperation since the administrative exchange partner city began in 1989, which included a public official exchange agreement in 1990 and a sisterhood tie in 2007.

The Busan–Fukuoka Asia Gateway 2011 began to be discussed in 2007 and the project period was between 2008 and 2011. This study analyzes the policy network that focused on the process of implementation, which is categorized into three phases as listed in Table1. This is because with their resources and information, the actors that participated the policy network were likely to exert their influence differently in each phase.

Table 1. Time division for analysis

Pre-project phase	Project planning phase	Project implementation phase
November 2007 to March 2008	March 2008 to October 2008	October 2008 to December 2011
From proposition to agreement	From after agreement to the establishment of an executive committee	From after the establishment of an executive committee to completion of project

Pre-project phase was November 2007 to March 2008, the period when Fukuoka city proposed the tourism cooperative project to Busan metropolitan city and both cities reached an agreement. During the “Night of Tourism Exchange” held in Dalian, China in November 2007, the Mayor of Fukuoka, Yoshida Hiroshi, proposed a new tourism cooperation project to the Busan Mayor, Namshik Heo, the “Asia Gateway Campaign 2011” (tentative). This cooperative would be implemented in 2011 when the high speed rail projects, KTX of Korea and Shinkansen of Kyushu, Japan, would be completely operational, to increase the number of visitors for both countries. The two men agreed to develop a plan for the realization of the project. Later, in January 2008, the director of economic development for Fukuoka visited Busan and worked out the details of a plan to create a regional tourism area and joint project beginning in March 2008. Earlier, Busan had proposed the creation of a super-regional economic zone and the tourism project was promoted as part of the preparation for it.

Project planning phase was from March 2008 to October 2008, period when both cities reached agreement and established an executive committee. After agreeing on the project, hands-on meetings with staff and members of the public and private sectors were held alternately in Busan and Fukuoka to decide the direction and goal of the project. Also, in October of the same year, an executive committee was established to operate the project. Frequent meetings and exchanges were held on a monthly basis between the two cities, which enabled the prerequisites necessary for the realization of the project. The goal of the project was to develop the southeast region of Korea and the Kyushu region of Japan centering on Busan and Fukuoka as a single tourism region and invite international tourists. Each city invested 200 million KRW per year in the project. To promote joint organization, Fukuoka was the administrator city in 2008 and 2009 and Busan in 2010 and 2011¹⁸⁾.

Project implementation phase was from October 2008 to December 2011, the period when an executive committee was established and various cooperative activities were implemented. The two cities shared their views through a work level meeting and continued regular exchanges for specific operations of the project, which included creation of joint promotional materials, a logo, website, and joint research on tourism behavior, college student ambassadors, and sport tourism exchange, all to help the two cities to become recognized as a one tourism region. As of 2014, the implementation of this project has been extended; however, this study analyzes the initially planned project period.

In accordance with above phase, the study examines dynamic changes of network structure and the function of its actors.

Method

Analysis Subject

The subjects of this network analysis are the actors directly and indirectly participating in the “Busan-Fukuoka Asia Gateway 2011” cooperative tourism project. The first screening of actors was based on public documents issued by Busan metropolitan city and Fukuoka city. Final selection was done through interviews with the personnel responsible for the project. The personnel responsible in the Fukuoka Tourism Strategy Division and Busan Tourism Promotion Division were interviewed on August 23, 2012 and on August 30, 2012, respectively.

On the basis of the above process, the final actors comprised the members of executive committee, related participants of the project implementation, and the members of the working-level meeting. The list of all organizations were largely categorized and divided into six groups: local governments, public corporations and local associations, colleges and research institutes, tourism associations and relevant bodies, tourism-related private entrepreneurs, and media including 21 organizations in Busan and 24 in Fukuoka (Table 2).

Table 2. Lists of Actors/Organizations

Categories (Node name)	Busan	Fukuoka
Local governments (Local Gov.)	Tourism Promotion Division at Busan Metropolitan City, International Relations Division at Busan Metropolitan City, Sports Promotion Division at Busan Metropolitan City	Tourism Policy & Convention Section at Fukuoka City, Tourism Promotion Section at Fukuoka City, International Affairs Department at Fukuoka City
Public corporations and local associations (Public Co., Ltd.)	Yoengnam Cooperation Agency of Korea Tourism Organization, Busan & Kyungnam of Korea Railroad Corporation	Kyushu District Transport Bureau
Research institutes and Colleges (Inst. & Coll.)	Busan Development Institute, Dong-a University, Dongseo University	Kyushu University, Kyushu Sangyo University, Kyushu Economic Research Center
Tourism associations and relevant bodies (Tourism Assn. etc.)	Busan Tourism Association, Busan Tourism Convention Bureau, The Busan Chamber of Commerce & Industry	Kyushu Tourism Promotion Organization, Fukuoka Convention & Visitors Bureau, Fukuoka Chamber of Commerce & Industry, Japan Association of Travel Agents of Fukuoka Area, Shintencho Shopping District Cooperative
Tourism-related private entrepreneurs (Co., Ltd.)	Lotte Hotel Busan, Lotte Duty Free Busan, Lotte Giants, Gwangbokro Culture Forum, J&K (Japan & Korea), JIEX	Nishi-Nippon Railroad Company, Kyushu Railway Company, JTB Kyushu, JTB Communications Kyushu, Dentsu Kyushu, Media Planet, Fukuoka SoftBank Hawks, Hospitable Corp.

Media (Media)	Busan MBC, Kukmin Ilbo, Gyeongnam KNN	Busan Iibo, Busan &	Nishi-nippon Shinbun, Western Headquarter of Yomouri Shinbun, Nishinippon Corp.
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Questionnaire and Data Collection

A structured questionnaire was developed to measure the interconnectedness of the actors. Surveys and questionnaires in whole-network study employ several response formats to obtain network data: binary judgment about whether respondents have a specified relationship with each actor on the roster, ordinal ratings of the tie strength, or rankings²⁴⁾. It typically includes two types of questions: 1) “name generators” identifies individuals for study in the respondent’s interpersonal environment” and 2) “name interpreters” flesh out substantive details on relationships and kinds of people in the identified environment²⁵⁾. Name interpreter is a series of questions asked to acquire information needed for interpreting the network actors listed in name generator²⁶⁾. The questions include such items such as the attributes of actors, age, length of time for which they have known each other, and frequency of contact. Regarding frequency of contact, questions concerning how often they exchange words on average with the companion(s) mentioned was be asked. This study utilized the name interpreter questions with the purpose of investigating the density of frequency of contact and its concrete details. Questionnaire was organized into items, which enable measurement of the internal network and external network. To measure the internal network, the researcher asked respondents in Busan “with which organization(s) of Busan on the list did you cooperate in each phase?” These relationships also describe the frequency and its contents. Frequency is classified into five groups that include once in a year, once in 6 months, once in 3–4 months, once in a month, once in a week. Thereafter, to measure the external network, the researcher presented the Busan actors with Fukuoka-based organizations and asked the question “with which organization(s) of Fukuoka on the list did you cooperate in each phase?” The respondents were asked to fill in their frequency of contact and its contents. Similarly, the respondents in Fukuoka were also asked to fill in the details regarding the partnership they had maintained with actors in Fukuoka as well as in Busan.

Data was collected through e-mail from 45 organizations, which were previously selected as actors in Busan and Fukuoka. The researcher referred to 45 organizations’ homepage for the main phone numbers and contacted the persons in charge. After explaining them the objectives of the research, the questionnaires were sent by email and collected. An e-mail questionnaire survey was conducted from September 19, 2012 to October 23, 2012. From Busan, 18 samples were collected from 21 organizations except three organizations that did not respond: Lotte Giants, Gwangbokro Culture Forum, and JIEX. From Fukuoka, 17 samples were collected from 24 organizations except 7 organizations that did not respond: International Affairs Department at Fukuoka City, Kyushu University, Shintenchō Shopping District Cooperative, Kyushu Railway Company, JTB Kyushu, Fukuoka SoftBank Hawks, and Television Nishinippon Corp. Of the total samples collected, 35 samples of 45 organizations were used for the analysis and the sample collection rate was 78%. Collected data were recorded three adjacency matrix in each phase. A weighted value was applied; 0 for no cooperative relationship and the number increases from 1 to 5 with the frequency of the cooperative relationship. Constructed adjacency

matrices were entered into UCINET 6 software to compute the network measures and graphic representations between the network actors.

Findings

General Characteristics of Network Structure

First, the average degree, density, and network centralization were analyzed to examine the overall structural characteristics of the network (Table 3).

Table 3.Characteristics of the Network Structure

	Pre-project Phase	Project Planning Phase	Project Implementation Phase
Avg. Degree	1.133	1.533	2.311
Density	0.075	0.111	0.159
Network Centralization	14.419%	20.021%	25.666%

In pre-project phase, the average degree was 1.133, which implies that any given actor maintains cooperative relationships with 1.133 different actors in the network. In fact, Busan and Fukuoka have been holding joint tourism presentations in Japan, Korea, and China since 2000 prior to beginning of the project, implying that they previously had a relationship in the tourism field (before this project). After the agreement for this cooperative project, the average degree was 1.533 during the project planning phase and increased to 2.311 during the project implementation phase, which shows the tendency for a steady increase in the average degree in the network. The density is the actual connection number rate of all of the connection numbers that can exist in the network and has values between 0 and 1²²⁾. The increased network density refers to the formation of various relationships, seamless exchanges, and support of resources and information between actors. The network centralization was 14.419% pre-project phase, 20.021% during the project planning phase, and 25.666% during the project implementation phase. This means that the entire network centralized on key actors at the center of the network during the project.

Following figures depict the cooperative network in chronological order (Figure 1, Figure 2, and Figure 3). The network sociogram illustrates the interconnectedness by identifying the positions of actors. Network node denotes the 45 organizations which participated in the project. The organizations in Busan are denoted as a circle, whereas those of Fukuoka are denoted as a square. The links connecting each node indicate the presence of interaction that is maintained between institutions. The thickness of the line is and the size of the arrow relates to the frequency of interaction.

Figure 1.Pre-project Phase

Figure 2.Project Planning Phase

Figure 3.Project Implementation Phase

Figure 1 illustrates the pre-project phase. Local governments in Busan and Fukuoka are located at the center of the network. As is obvious from the location of nodes described as circles and squares, they gather around the institutions in Fukuoka and Busan respectively. Figure 2 illustrates the project planning phase. The local governments remained centered in the network. Specifically, a center-periphery structure centering on the local government in Busan is being formed. Local government in Busan receives arrows mostly from the nodes in Busan. Figure 3 illustrates the network during the implementation phase. Compared with the previous period, the densest relationship is formed. The arrows directed toward local governments in Busan and Fukuoka are larger in number; in other words, their influence at the center of network has increased further compared with the previous period. Media has also entered into the center of the network. In addition, as is obvious from the fact that the circle and square nodes are cooperated complicatedly, we can see that various actors in Busan and Fukuoka established close cooperative relationships beyond national border during this period.

Centrality Analysis

Phase 1: Pre-project Phase

Table 4 shows the results of an analysis of the degree of centrality pre-project phase. For out-degree, the Tourism Promotion Division at Busan Metropolitan City, J&K (Japan & Korea), Busan Tourism Association, Busan Development Institute, and Asahi Shimbun show high centrality indicators. For in-degree, the Tourism Promotion Division at Busan Metropolitan City, Tourism Policy & Convention Section at Fukuoka City, Nishi-Nippon Railroad, Tourism Promotion Section at Fukuoka City, and Kyushu Railway Company show high centrality. A high degree of centrality indicates a relatively large number of direct cooperative relationships between these actors than between other actors.

Table 4. Degree Centrality in the Pre-project Phase (Top 5 Actors)

Rank	Actor	Out-degree	Rank	Actor	In-degree
1	Tourism Promotion Division at Busan Metropolitan City	9.091	1	Tourism Promotion Division at Busan Metropolitan City	15.455
2	J&K(Japan & Korea)	8.192	2	Tourism Policy & Convention Section at Fukuoka City	7.727
3	Busan Tourism Association	7.727	3	Nishi-Nippon Railroad Co., Ltd.	4.091
4	Busan Development Institute	5.509	4	Tourism Promotion Section at Fukuoka City	3.636
4	Asahi Shinbun	5.509	4	Kyushu Railway Company	3.636

As seen in Table 4, the Tourism Promotion Division at Busan Metropolitan City ranked

number one for both out- and in-degree, and had exchanges with the Tourism Policy & Convention Section at Fukuoka City for cooperative tourism information sessions every month for tourism marketing cooperation and met every three or four months with the Tourism Promotion Section at Fukuoka City and International Affairs Department at Fukuoka City to discuss project policies. J&K is a private entrepreneur that provides tourism information about Busan to Japanese tourists. As a private operator, J&K cooperates with the Tourism Promotion Division at Busan Metropolitan City and Busan Tourism Association by providing information related to tourism. J&K, which ranked second for out-degree, consulted with the Fukuoka Tourism Convention Bureau twice a year. They interacted with Nishi-Nippon Shimbun every month and provided them with information. Next, every three or four months, the Busan Tourism Association had exchanges with the Tourism Promotion Section at Fukuoka City and Fukuoka Tourism Convention Bureau. As mentioned previously, the Busan Tourism Association and Fukuoka Tourism Convention Bureau have approximately 40 years of exchange history based on their sisterhood relationship founded in 1966. The Busan Development Institute has provided a significant amount of information to the Tourism Promotion Division at Busan Metropolitan City, Sports Promotion Division at Busan Metropolitan City, and International Relations Division at Busan Metropolitan City. Asahi Shimbun provided information by suggesting promotions to the railroad companies and travel agencies in Fukuoka. The Nishi-Nippon Railroad, which ranked third in in-degree, participated in the Tourism Information Exchange Convention with the Tourism Policy & Convention Section at Fukuoka City and interacted with Asahi Shimbun for tourism marketing plan suggestions.

Table 5 demonstrates the results of the analysis of betweenness centrality. The top five positions as mediating actors in Busan and in and out of Fukuoka were taken by these agencies; Tourism Promotion Division at Busan Metropolitan City, Tourism Policy & Convention Section at Fukuoka City, Tourism Promotion Section at Fukuoka City, Busan Tourism Association, and Nishi-Nippon Railroad. In general, these results indicate that the local governments play a key role in mediating information and resources between the actors within the network.

Table 5. Betweenness Centrality Pre-project Phase (Top 5)

Rank	Actor	Betweenness
1	Tourism Promotion Division at Busan Metropolitan City	5.072
2	Tourism Policy & Convention Section at Fukuoka City	2.689
3	Tourism Promotion Section at Fukuoka City	1.011
4	Busan Tourism Association	0.743
5	Nishi-Nippon Railroad Co., Ltd.	0.661

Phase 2: Project Planning Phase

The project planning phase refers to the period required to establish an executive committee, which was from March to October 2008, when the two cities agreed on the joint project. During this time, four working-level meetings were held, the project road map was prepared, and the specific directions and ideas for project implementation were discussed. Table 6 demonstrates the results of the degree centrality analysis in the project planning phases. For

out-degree Media Planet, J&K, International Relations Division at Busan Metropolitan City, Tourism Promotion Division at Busan Metropolitan City, and Tourism Promotion Section at Fukuoka City show high centrality indexes. For in-degree Tourism Promotion Division at Busan Metropolitan City, Tourism Policy & Convention Section at Fukuoka City, JIEX Inc., Busan Tourism Convention Bureau, and Nishi-Nippon Shimbun show high degrees of centrality.

Table 6. Degree Centrality in the Project Planning Phase (Top 5)

Rank	Actor	Out-degree	Rank	Actor	In-degree
1	Media Planet Co., Ltd.	10	1	Tourism Promotion Division at Busan Metropolitan City	21.364
2	J&K	9.545	2	Tourism Policy & Convention Section at Fukuoka City	15
2	International Relations Division at Busan Metropolitan City	9.545	3	JIEX Inc.	6.364
3	Tourism Promotion Division at Busan Metropolitan City	9.091	4	Busan Tourism Convention Bureau	5.455
4	Tourism Promotion Section at Fukuoka City	8.182	4	Nishi-Nippon Shimbun	5

Media Planet, newly introduced during this period, is a multimedia company in Fukuoka that produces webpages and video content. Media Planet cooperated with the Tourism Policy & Convention Section at Fukuoka City and Nishi-Nippon Shimbun to produce a joint webpage, which was one of the joint projects between Busan and Fukuoka. Also, Media Planet ranked first for out-degree, interacting with universities, private entrepreneurs, and local newspapers in Busan. J&K cooperated with the Tourism Promotion Division at Busan Metropolitan City, hotels, and JIEX for marketing in Japan and constructing the webpage. J&K actively consulted with Media Planet and local newspapers in Fukuoka and provided them with information. The International Relations Division at Busan Metropolitan City successfully lowered the language barriers by interpreting at Busan-Fukuoka's working level meetings and cooperating with the Tourism Promotion Division at Busan Metropolitan City to provide the necessary information for exchanges and cooperation with Fukuoka. Next, the Tourism Promotion Division at Busan Metropolitan City and the Tourism Promotion Section at Fukuoka City ranked third and fourth for out-degree and first and second for in-degree, respectively. Together, as principals of the project, they influenced actors and controlled a wide range of resources in the network. JIEX, a 3D graphic design company in Busan, ranked third for in-degree. They were asked to construct the joint webpage. Thus, they held meetings with BusanIlbo and Media Planet every month. The Busan Tourism Convention Bureau ranked fourth and cooperated with the Tourism Promotion Division at Busan Metropolitan City for financial support and project implementation.

Table 7 demonstrates the results of the betweenness centrality analysis. The top five organizations in betweenness centrality for the project planning phase were Tourism Promotion

Division at Busan Metropolitan City, Tourism Policy & Convention Section at Fukuoka City, Busan Tourism Association, Busan MBC, and Tourism Promotion Section at Fukuoka City.

Table 7. Betweenness Centrality in the Project Planning Phase (Top 5)

Rank	Actor	Betweenness
1	Tourism Promotion Division at Busan Metropolitan City	6.541
2	Tourism Policy & Convention Section at Fukuoka City	3.792
3	Busan Tourism Association	2.378
4	Busan MBC	2.083
5	Tourism Promotion Section at Fukuoka City	0.559

Just as pre-project phase, the organizations below held the four highest positions in betweenness centrality in the project planning phase were Tourism Promotion Division at Busan Metropolitan City, Tourism Policy & Convention Section at Fukuoka City, Busan Tourism Association, and Tourism Promotion Section at Fukuoka City. These results indicate that the actors within the network are contacting other actors through these organizations. Furthermore, it means that they hold more advantageous positions than other actors. Local governments and private operators held the highest positions in centrality during the project planning phase. Especially, new private operators with specialized technologies who contributed to laying foundations for joint projects.

Phase 3: Project Implementation Phase

During the project implementation phase, joint projects were implemented through interaction between actors in both countries after the establishment of the executive committee. Table 8 demonstrates the degree of centrality in the project implementation phase.

Table 8. Degree of Centrality in the Project Implementation Phase (Top 5)

Rank	Actor	Out degree	Rank	Actor	In degree
1	Tourism Policy & Convention Section at Fukuoka City	10.909	1	Tourism Promotion Division at Busan Metropolitan City	27.727
1	Busan Tourism Association	10.909	2	Tourism Policy & Convention Section at Fukuoka City	25.909
1	Tourism Promotion Section at Fukuoka City	10.909	3	Nishi-Nippon Shimbun	9.545
2	J&K	10.455	4	BusanIlbo	8.646
2	Busan MBC	10.455	4	Busan Tourism Convention Bureau	7.273

Tourism Policy & Convention Section at Fukuoka City, Busan Tourism Association, Tourism Promotion Section at Fukuoka City, J&K, and Busan MBC showed high out-degrees of centrality. Tourism Promotion Division at Busan Metropolitan City, Tourism Policy & Convention Section at Fukuoka City, Nishi-Nippon Shimbun, BusanIlbo, and Busan Tourism Convention Bureau showed high in-degrees of centrality.

The Tourism Policy & Convention Section at Fukuoka City with a high degree of centrality actively shared opinions with an advertising agency, travel agency, and local newspaper in Fukuoka, and discussed the project with the Tourism Promotion Division at Busan Metropolitan City, Busan Tourism Association, and Busan Tourism Convention Bureau. Nishi-Nippon Shinbun and BusanIlbo ranked third and fourth for in-degree and together acted as key actors with local governments during the project implementation phase. Nishi-Nippon Shimbun and BusanIlbo acted as principals in the joint homepage projects and promoted “Busan-Fukuoka Asia Gateway 2011” to a local newspaper. They discussed webpage operations with private operators and actively interacted and cooperated with local governments and travel agencies within the network by sharing information and making suggestions.

Table 9 demonstrates the results of the betweenness centrality analysis.

Table 9. Betweenness Centrality in project Implementation Phase (Top 5)

Rank	Actor	Betweenness
1	Tourism Policy & Convention Section at Fukuoka City	9.436
2	Tourism Promotion Division at Busan Metropolitan City	8.810
3	BusanIlbo	4.172
4	J&K	2.863
5	Busan Tourism Association	2.549

During the project implementation phase, Tourism Policy & Convention Section at Fukuoka City, Tourism Promotion Division at Busan Metropolitan City, BusanIlbo, J&K, and Busan Tourism Association exhibited high betweenness centrality. Additionally, it appears that BusanIlbo held the top spot for in-degree playing an important role as an intermediary. During the project implementation phase, BusanIlbo was a key actor, cooperating with many actors in the network.

Conclusion

This study was conducted to explain tourism cooperation throughout a policy network of local governments and other actors, and to empirically analyze the interactions between all the actors through network analysis. The following conclusion can be drawn on the basis of the research results.

First, in pre-project phase, the local government in Busan ranked high in all centrality degrees. Tourism promotion division at Busan metropolitan city maintains a close connection with both Fukuoka city and the actors in Busan, which is reflected in the network. In addition, local governments in Busan and Fukuoka ranked high in the betweenness centrality, which shows that both cities took the central role in mediating actors within the network. During the

period, many inter-institutional relationships were created between public and private organizations; in other words, resources were exchanged even before the start of the project. Especially, in the case of the cross-border relationship between Busan and Fukuoka, municipality, and local tourist associations had a lively exchange.

Second, in the project planning phase, private entrepreneurs that ranked high in out-degree centrality appeared. During this period, the importance of the role of private enterprises increased. Their expertise was considered necessary to produce joint tourism websites or for the creation of broadcasts necessary for encouraging exchanges among citizens, and to proceed with the detailed planning of the projects, for example, organizing sports exchanges. We can say that the public and private partnership played a significant role in the preparatory stage. Nevertheless, the power of administration increased further in in-degree centrality and betweenness centrality. Although the out-degree centrality was similar for each actor in-degree centrality of the tourism promotion division at Busan metropolitan city ranked the highest among others. This suggests the possibility that a specific actor—Busan metropolitan city in this case—can monopolize the acquisition and utilization of information, in which each actor was engaged in a similar degree. Regarding betweenness centrality, local governments in Busan and Fukuoka ranked high as in the previous period.

Third, in the project implementation phase, administration and tourism association, private entrepreneurs, and media—in terms of out-degree—exercised equal influence by enthusiastically offering information and by playing an active part. However, in terms of in-degree and betweenness centrality, local governments in Busan and Fukuoka ranked markedly high compared with other actors within the network. This shows that the administration located in the center of network exerted a larger influence during this period.

Tourism cooperation network between Busan and Fukuoka forms a complex pattern. The number of actors participating in it increased as the project proceeded. Moreover, the administration gradually grew to hold power and lead various actors. Although there was transmission of information and resources by various actors, the reception of the information and resources was centralized chiefly by local governments. The administration had taken the initiative in establishing the structure to control vast amount of resources and information. Especially, the administration in all phases ranked high in all betweenness centrality. This implies the high possibility that when their presence is excluded from the network, the cooperation between actors would discontinue or more likely the entire network would collapse. Thus, equal distribution of power is needed to maintain network stability. This case study confirmed the significance of powerful administrative momentum and the coordinators' role in the execution of the cooperation project. However, its result implies that when organizations with independent decision-making structures gathered and manage a joint program, and authority or power are handed over to one organization, the actors in the central and peripheral section of the network are likely to experience power relationship. Although the current program initially established the executive committee membered by the public and private sector, it was administrative working-level officials who actually displayed leadership in the execution of the program. For the future sustainable development of the cooperative project, the administration should create a channel in which private sectors are able to interact with various actors and discuss direction of the program. In addition, private sectors should play a more positive role and establish a structure that enables to develop their own business model.

This study has analyzed the characteristics of policy networking targeting a tourism

cooperative between local governments and engaged a diverse set of methodologies. Furthermore, the study identified key actors and its implications in the cooperative process, which will provide a basic foundation required for planning and implementing tourism cooperation policy whereas, previous studies focused on fostering experts, establishing professional organizations, and developing products to establish a tourism cooperative system. In the future, an analysis of internal and external environmental factors that result in disproportionate power in a network is required. Furthermore, there is a need to establish generalized theories on the study of local governmental tourism cooperation policy through an empirical analysis of various cases.

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